

AMENDMENTS TO THE CLAIMS

Presented below is a complete set of claims with current status indicators.

1. (currently amended) A cardiac stimulation system for implantation in a patient, the cardiac stimulation system comprising:

first and second electrodes configured for positioning in a bifocal arrangement within a right ventricle;

a first lead system adapted for carrying the first and second electrodes in the high basal region of the right ventricle at generally opposite sides of the right ventricle;

a third electrode adapted for positioning outside the right ventricle;

a power supply; and

a controller coupled to the power supply and operative to activate the first, second and third electrodes to deliver pulse therapy to the heart according to predetermined criteria.

2. (original) A cardiac stimulation system according to claim 1 wherein:

the first electrode is adapted for disposition in the posterior high basal region of the right ventricle proximate the septum, and the second electrode is adapted for disposition in the anterior high basal region of the right ventricle proximate the septum.

3. (withdrawn) A cardiac stimulation system according to claim 1 wherein:

the power supply and the controller are housed in a metallic housing, and the third electrode comprises the metallic housing.

4. (original) A cardiac stimulation system according to claim 1 wherein:

the third electrode is disposed in the right atrium.

5. (withdrawn) A cardiac stimulation system according to claim 1 wherein:

the third electrode is disposed in the left ventricle.

6. (original) A cardiac stimulation system according to claim 1 wherein:

the first lead system comprises a single pre-formed lead.

7. (original) A cardiac stimulation system according to claim 1 wherein:

the first lead system comprises a pair of leads, each lead adapted for carrying one of the first and second electrodes.

8. (original) A cardiac stimulation system according to claim 1 wherein at least one of the first and second electrodes comprises an electrode from the group comprising a tip electrode, a bipolar electrode, and a coil electrode.

9. (currently amended) A cardiac stimulation system for implantation in a patient to stimulate the patient's heart, the cardiac stimulation system comprising:

~~means for generating bifocal stimulation pulses~~ first and second electrodes configured for positioning in a bifocal arrangement;

~~means for carrying the means for generating in the right ventricle~~ a first lead system adapted for carrying the first and second electrodes in the right ventricle in accordance with the bifocal arrangement and along the high basal region of the heart proximate the septum;

a third electrode adapted for positioning outside the right ventricle;

a power supply; and

a controller coupled to the power supply and operative to activate the first, second and third electrodes to deliver pulse therapy to the heart according to predetermined criteria.

10. – 17. (canceled)

18. (currently amended) A method of defibrillating a patient's heart by an implantable cardiac stimulation system, the implantable cardiac stimulation system having a controller encased in a metallic housing and a pair of spaced apart electrodes disposed ~~in the right ventricle~~ in the high basal region of the right ventricle on generally opposite sides of the right ventricle, the method comprising:

detecting ventricular fibrillation; and

delivering at least one first electrical pulse between the pair of electrodes within the right ventricle.

19. (withdrawn) A method of defibrillating a patient's heart according to claim 18 and further comprising:

determining the effectiveness of the at least one electrical pulse in terminating the ventricular fibrillation; and

delivering a second electrical pulse from between at least one of the pair of electrodes and the metallic housing if the first pulse is ineffective.

20. (withdrawn) A method of defibrillating a patient's heart according to claim 19 and further comprising:

determining the effectiveness of the second electrical pulse in terminating the ventricular fibrillation; and

delivering a third electrical pulse from between at least one of the pair of electrodes and the metallic housing if the second pulse is ineffective.

21. (original) A method according to claim 18 wherein:  
the first electrical pulse comprises a biphasic waveform having respective first positive and first negative components.

22. (withdrawn) A method according to claim 19 wherein the cardiac stimulation system further comprises a left ventricular electrode, and wherein delivering a second electrical pulse comprises:

delivering a second electrical pulse between at least one of the pair of electrodes and the left ventricular electrode.

23. (original) A method of stimulating a patient's heart by an implantable cardiac stimulation system, the implantable cardiac stimulation system having a controller encased in a metallic housing and a pair of spaced-apart electrodes disposed in the high basal region of the right ventricle on opposite sides of the ventricle, the method comprising:

detecting an arrhythmia;

selecting an appropriate pulse therapy; and

delivering at least one electrical pulse between the pair of spaced-apart electrodes.

24. (currently amended) A method according to claim 23 wherein the implantable cardiac stimulation system has a third electrode positioned outside the right ventricle, and further comprising:

determining the effectiveness of the first electrical pulse in terminating the arrhythmia; and

delivering a second electrical pulse from between the other of the pair of electrodes and the third electrode if the first pulse is ineffective.

25. (withdrawn) A method according to claim 23 wherein selecting an appropriate pulse therapy comprises:

selecting an anti-tachycardia pacing therapy for generating electrical pulses in the range of 0 to 10 volts.

26. (original) A method according to claim 23 wherein selecting an appropriate therapy comprises:

selecting an atrial cardioversion pulse therapy for generating electrical pulses in the range of 10 to 400 volts.

27. (original) A method according to claim 23 wherein selecting an appropriate therapy comprises:

selecting a ventricular defibrillation pulse therapy for generating electrical pulses in the range of 400 to 800 volts.

28. (withdrawn) A method according to claim 23 wherein selecting an appropriate therapy comprises:

selecting a heart failure pulse therapy.

29. (original) A method of cardioverting the atria by an implantable system, the implantable system having a controller and a pair of right ventricular electrodes disposed in a bifocal arrangement in the high basal region of the right ventricle proximate the septum and at opposing anterior and posterior sides, the implantable system further comprising a third electrode disposed in the right atrium, the method comprising the steps:

detecting an atrial arrhythmia; and  
delivering a first electrical pulse between the third electrode and at least one of  
the right ventricular electrodes.

30. (original) A method according to claim 29 and further comprising:  
determining the effectiveness of the first electrical pulse in terminating the atrial  
arrhythmia; and  
delivering a second electrical pulse between the third electrode and the other of  
the pair of electrodes if the first pulse is ineffective.